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TITLE: Method for Attachment of Advertisements to a Road
Barrier

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CROSS REFERENCES AND RELATED SUBJECT MATTER

This application is a divisional of patent application serial
number 10/215,803, filed in the United States Patent Office
on August 9, 2002.

BACKGROUND OF THE INVENTION

The invention relates to a display assembly for
attachment of advertisements to a road barrier. In
particular, the invention is a method for attaching
advertisement panels to a road barrier using a display
assembly that is selectively attachable to the road barrier
and has a vertical partition having a transverse thru cavity.
Panels having advertisements displayed thereon are inserted

into the display assembly for viewing by passersby and the advertisements may be changed as desired.

Road barriers are often used on roads to block traffic
5 from entering a specific location and are placed between
lanes to separate traffic in opposite directions. The
barriers are commonly found surrounding construction sites
where traffic is redirected. Besides clearing unwanted
traffic from the construction area and helping to maintain
10 the safety of construction workers, the barriers also prevent
people from entering the sites and possibly sustaining
injuries.

The barriers that are typically employed have horizontal
15 bases and vertical partitions extending upward from the
bases. Traditionally, most such barriers were cast of
concrete. Accordingly, the weight of the barrier by virtue
of its fabrication of concrete contributes significantly to
its value in preventing automobiles from breaching the
20 barrier. In particular, the horizontal base of such concrete
barriers has significant weight. However, a considerable
disadvantage of such barriers is that they are difficult to
move. Generally as construction progresses, it is necessary
to move such barriers often. In certain locales, where
25 barriers are used for traffic control, the barriers might
need to be moved several times a day.

To help solve the portability issue while maintaining the integrity of the barrier, "fillable" barriers have been created in recent years. These barriers are typically made of a tough plastic material, and are hollow — making them
5 lightweight and easy to transport when empty. However, once filled, they acquire significant ballasting, making them an effective barrier. Generally, the barriers are substantially water-tight, such that they may be filled with water for ballasting once suitably positioned. Accordingly, moving the
10 barrier is simply preceded by emptying the water — generally by removing a drain plug.

In use, two or more of such barriers may be interlocked to form a temporary wall around an area. Each barrier is
15 filled with water in order to prevent it from tipping over or from being easily moved. Thus, because of the intended purpose of the barrier, it can remain stationary for many hours, and possible many days, at a time.

20 Because of the exposure the barriers receive, the front and rear surfaces of the barrier vertical partitions may potentially serve as billboards for displaying advertisements. Because these barriers are often used around auto races, and during many televised sporting events, they
25 are highly visible and are highly suitable for advertisement. However, because the barrier is generally constructed of plastic, and is water-filled, it is difficult to securely

attach a display device onto the barrier. In this regard,
any holes made in the barrier when attaching the display
device would compromise the integrity of the barrier, and its
ability to hold water therein. Thus, there exists a need for
5 a display assembly constructed for securely coupling with the
road barrier. Such an assembly should be easily installable
on the barrier without compromising its integrity. The
assembly would include a panel on which advertisements are
displayed.

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While the advertisement display units currently
available may be suitable for the particular purpose
employed, or for general use, they would not be as suitable
for the purposes of the present invention as disclosed
15 hereafter, namely displaying advertisements on road barriers.

SUMMARY OF THE INVENTION

In view of the foregoing disadvantages inherent in the prior art, the present invention provides a method for
5 attaching an advertisement display to a road barrier. As such, the general purpose of the present invention, which will be described subsequently in greater detail, is to provide a new and improved display assembly system for attaching advertisements to a road barrier which has all the
10 advantages of the prior art and none of the disadvantages.

It is an object of the invention to attach a display assembly to a road barrier for displaying advertisements thereon. Accordingly, the display assembly has a mounting
15 bracket assembly and a panel sleeve for holding an advertisement panel. The bracket assembly secures the panel sleeve against the road barrier vertical partition.

It is a further object of the invention to provide an
20 advertisement display upon the barrier without penetrating the barrier with fastening devices or otherwise compromising the integrity of the barrier. Accordingly, the mounting bracket assembly includes a pair of mounting brackets which each extend partially into the transverse thru cavities in
25 the vertical partition of the barrier, where the mounting brackets secure to each other to hold the display assembly

against the barrier without "physically attaching" to the barrier.

To attain this, the present invention employs a display
5 assembly for mounting advertisement panels on a road barrier
having a vertical partition having a front surface a rear
surface, and at least one transverse thru cavity extending
between the front surface and rear surface between the top
and bottom of the vertical partition. The display assembly
10 has a panel sleeve for holding the advertisement panel in
place, and a pair of mounting brackets for securing the panel
sleeve against the vertical partition of the barrier. Each
mounting bracket has a C-shaped insert for extending
partially through cavities in the road barrier vertical
15 partitions. One mounting bracket is mounted against the
barrier vertical partition front surface and the other
bracket is mounted against the barrier vertical partition
rear surface, wherein the C-shaped inserts are secured to
each other to hold the brackets and the panel sleeve securely
20 against the vertical partition. The panel sleeve has a
horizontal top lip oriented downward and a horizontal bottom
lip oriented upward. The advertisement panel is inserted
between the panel sleeve lips, thereby displaying the
advertisement upon the barrier.

25

To the accomplishment of the above and related objects
the invention may be embodied in the form illustrated in the

accompanying drawings. Attention is called to the fact, however, that the drawings are illustrative only. Variations are contemplated as being part of the invention, limited only by the scope of the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings, like elements are depicted by like reference numerals. The drawings are briefly described as follows.

FIG 1 is a perspective view of two road barriers interlocked, with a display assembly mounted on each barrier.

FIG 2 is an exploded side elevational view, illustrating installment of the display assembly onto the road barrier.

FIG 3 is a perspective view of the barrier with the display assembly mounted therein, illustrating a pair of mounting brackets secured to each other within and a panel sleeve secured to the road barrier vertical partition.

FIG 4 is a perspective view of the display assembly coupled with the road barrier, illustrating the panel being inserted within the panel sleeve.

REFERENCE NUMERALS

	10	road barrier
	12	display assembly
5	14	advertisement
	16	panel
	18	panel sleeve
	20	mounting bracket
	21	mounting bracket outer frame
10	21T	mounting bracket outer frame top horizontal piece
	21B	mounting bracket outer frame bottom horizontal piece
	22	mounting bracket vertical support
	22T	mounting bracket vertical support top end
	22B	mounting bracket vertical support bottom end
15	22M	mounting bracket vertical support middle portion
	23	road barrier horizontal base
	24	road barrier vertical partition
	24F	road barrier vertical partition front surface
	24R	road barrier vertical partition rear surface
20	24M	road barrier vertical partition mid portion
	24T	road barrier vertical partition top
	24B	road barrier vertical partition bottom
	26	transverse thru cavity
	28	C-shaped insert
25	28L	transverse leg
	28S	longitudinal shoulder
	30	C-shaped insert shoulder aperture

32 fastening device
34 nut
38 panel sleeve top lip
40 panel sleeve bottom lip
5 42 panel sleeve vertical beams
44 rivet

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIG 1 illustrates two interlocking road barriers 10, wherein each barrier 10 has a display assembly 12 secured thereto for holding and displaying advertisements 14. The display assembly 12 essentially comprises a panel 16 on which the advertisement 14 is printed, a panel sleeve 18 for holding the panel 16 in place, and a pair of mounting brackets 20 for coupling the panel sleeve 18 with the barrier 10.

The road barrier 10 employed is the fillable type having a hollow interior, said barrier 10 having a horizontal base 23 and a vertical partition 24 extending upwardly therefrom. Both the horizontal base 23 and vertical partition 24 are substantially hollow and watertight, but are in fluid communication with each other. The vertical partition 24 has a vertical partition top 24T, a vertical partition bottom 24B which adjoins the horizontal base 23, a mid portion 24M, a front surface 24F, and a rear surface 24R. A plurality of transverse thru cavities 26 extend through the mid portion 24M, extending from the front surface 24F to the rear surface 24R. The cavities 26 are positioned between the vertical partition top 24T and vertical partition bottom 24B and are longitudinally spaced along the vertical partition 24. The barrier illustrated in FIG 1 has three transverse thru cavities which are sealed above, below, and to the sides

thereof to maintain the fluid integrity of the vertical partition even above said thru cavities 26.

The mounting brackets 20 are designed for coupling to
5 each other within the transverse thru cavities 26 in order to hold the panel sleeve 18 against the vertical partition 24 of the barrier 10. The bracket 20 has an outer frame 21 having a top horizontal piece 21T and a bottom horizontal piece 21B. Several vertical supports 22 extend between the top and
10 bottom horizontal pieces 21T, 21B of the frame 21 and are secured thereto. Each vertical support 22 has a top end 22T, a bottom end 22B, and a C-shaped insert 28 therebetween. The C-shaped insert 28 extends inward from each vertical support 22, said insert 28 sized to be compatible with the transverse
15 thru cavity 26. The number of vertical supports 22 in each mounting bracket 20 is dependent on the number of cavities 26 in each barrier 10.

The insert 28 has two parallel transverse legs 28L each
20 attached and extending perpendicularly to one of the vertical support top end 22T and the bottom end 22B, and a longitudinal shoulder 28S extending between the transverse legs 28L. The C-shaped inserts 28 are spaced according to the positioning of the cavities 26 in the barrier 10. Thus,
25 when the mounting bracket 20 is held vertically against either the front or rear surface 24F, 24R of the barrier vertical partition 24, the C-shaped insert 28 of each

vertical support is extended into one of the transverse thru cavities 26, thereby allowing the bracket to be mounted flushed against said barrier 10.

5 One mounting bracket 20 is mounted against the barrier vertical partition front surface 24F and one bracket 20 is mounted against the barrier vertical partition rear surface 24R. The C-shaped inserts 28 of each bracket 20 are then extended through the transverse thru cavities 26. Each
10 insert 28 is approximately one-half the width of each cavity 26. Thus, when a pair of brackets 20 are positioned such that one of said brackets 20 extends against the front surface 24F, and the other of said brackets 20 extends against the rear surface 24R of the barrier vertical
15 partition 24, the C-shaped inserts 28 extend within the cavities 26 such that the shoulders 28S abut each other within the cavities 26. According to the present invention, the brackets 20 are held in place by attaching said C-shaped inserts 28 to each other. Accordingly, each insert shoulder
20 28S has an aperture 30 extending therethrough, said aperture 30 in the same position on each shoulder 28S. When positioned correctly in the cavity 26, the apertures 30 of the two inserts 28 are aligned and a fastening device 32, namely a bolt, is inserted therethrough. A nut 34 is
25 attached onto the bolt to selectively secure the mounting brackets 20 in place within the barrier vertical partition 24.

The panel sleeve 18 comprises a horizontal top lip 38 oriented downward, a horizontal bottom lip 40 oriented upward, and a plurality of vertical beams 42 extending therebetween. The spacing between the vertical beams 42 corresponds to the spacing between the mounting bracket vertical supports 22. Thus, when the panel sleeve 18 is properly positioned over the mounting bracket 20, the vertical beams 42 extend directly over the vertical supports 22. A plurality of rivets 44 extend through the vertical supports 22 of the mounting bracket 20 and the vertical beams 42 of the panel sleeve, in corresponding positions, in effect laminating the vertical supports 22 to the vertical beams 42 thus serving to mount the panel sleeve 18 atop the mounting bracket 20.

Once the display assembly is securely in place by securing the panel assemblies 18 against opposite sides of the barrier vertical partition 24 by connecting their respective mounting brackets 20 within the transverse cavities 26, the advertisement panels 16 may be inserted therein. When the panel sleeve 18 is properly mounted, the lips 38, 40 are oriented outward from the barrier 10 and are opposed from each other. The panels 16 with the advertisements 14 may then be slid longitudinally into place from beside the display assembly as illustrated in FIG 4, with the panels 16 extending between the panel sleeve top lip 38 and bottom lip 40.

A brief summary of the manner of displaying the advertisement panel upon the road barrier is provided as follows: Initially, the display assembly is attached onto the road barrier by positioning one of the mounting brackets against the front surface, and positioning the other against rear surface of the partition, such that their inserts extends partially into the transverse cavity and are mated together within the transverse cavity. In particular, the inserts are mated by bringing the longitudinal shoulders of the two inserts into close proximity and then fastening them together. Then, the advertisement panel can be displayed upon the road barrier by inserting the advertisement panel between the horizontal top lip and horizontal bottom lip.

In conclusion, herein is presented a method for displaying an advertisement panel upon a road barrier having transversely extending cavities by attaching a display assembly thereto. The invention is illustrated by example in the drawing figures, and throughout the written description. It should be understood that numerous variations are possible, while adhering to the inventive concept. Such variations are contemplated as being a part of the present invention.